HEART OF ANDES

PICTURES TAKEN IN THE ATTIC OF A CONTINENT.

MOST EXPENSIVE RAILROAD

WHERE PRETTY GIRLS ARE CAGED IN BY IRON BARS.

The Observatory at Arequipa—Life and Love in the Capital of Southern Peru—Something About the People Who Live Nearest the Sky.

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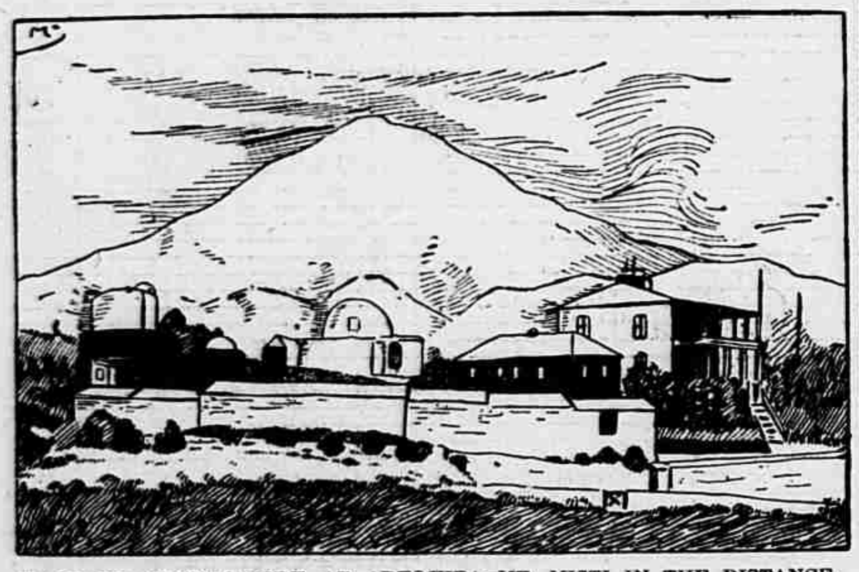
PUNO, PERU, May 26, 1898.—I write this letter in the attic of the South American continent. I am in the heart of the Andes mountains on what, with the exception of Thibet, is the loftiest tableland of the globe. At my feet is the western shore of Lake Titicaca, the highest water of the earth upon which steamboats sail, and looking down upon me is the snowy peak of Illampu, which, next to Aconcagua, in Chile, is the highest of the Andes. During the past week I have been traveling among the most wonderful mountains of South America, and I am now in a region which has not its counterpart upon the planet. Here and in other parts of the mountains of Peru are the highest places where people live. During my trip up the Oroya railroad I found a village of about 200 souls at an altitude of more than three miles above the sea. There is a mining camp in the Peruvian Andes which is more than 16,000 feet high, and in crossing the desolate plain known as the Pampa de Arrieros I stopped some time at Vincocya, where there is a locomotive roundhouse higher up in the air than the top of Pike's Peak. In coming here I traveled for two days over one of the steepest railroads in the world, and now, at a distance of more than 300 miles from the Pacific, I am on the great plateau which lies between the two ranges of the Andes, varying in altitude from 12,000 to 13,000 feet above the sea. I am hundreds of miles south of the point where I crossed the great mountains from Lima, and in a region where the Andes are more grand than at any point in the 4,000 miles of their length. Think of a mountain which towers up into the skies so that its ragged, snowy summit is four miles above the level of the ocean. Imagine, if you can, others which are over 20,000 feet high. Make a wall of such mighty hills and paint them in the wonderful colors, shades and tints of the Adean skies, and you can get a faint idea of my surroundings. I have with me many books upon South America, but I fail to find in them any descriptions of the scenic effects of these mountains. This is the region of all others for the artist, and yet no great artist has attempted to transfer these wonderful pictures to canvas.



HARVARD OBSERVATORY AT AREQUIPA—MT. MISTI IN THE DISTANCE.

Pictures From the Andes.

My trip over the Andes was a continuous panorama. Let me give you my notes of the scenes along the route as I jotted them down on the way. I begin at Mollendo on the Pacific ocean. It is a ragged town on the ragged coast of the Peruvian desert. The ship lies out in the harbor and the surf rolls in with great force, striking the rocks and sending its diamond spray fifty feet upward into the air. The harbor is rougher than that at Jaffa, and my baggage is lowered into a bounding boat over the side of the steamer. I have to jump into the boat when it is on the crest of the waves, and I feel my stomach rise as I jump down into the deep. The landing is so bad that men and baggage are often thrown into the water, and I am told that the insurance companies always charge one-eighth of 1 per cent more on all goods shipped to Mollendo. I am rowed to the shore by brawny, coffee-colored boatmen through huge rocks. Now we run into a lighter which is bringing out cargo for the steamer and are nearly capsized. Now we graze a great boulder and at the wharf I have to jump when the boat is on the crest of the wave to get a footing on the steps. My baggage cannot be landed except by means of a crane, and I pay four men $2 to carry my heavy trunks up the hills to the custom house. A little later on I am seated in the car on my way to Arequipa, which, though only about 100 miles from the coast, is higher up in the air than Mount Washington. Our train first skirts the coast, and then shoots off into the bare hills of the desert. There is not a shrub, not a vestige of green. We climb up a 4 per cent grade, winding about in horseshoe curves. At places we see the tracks over which we have passed running parallel with, but far below us. Now we are on a side of the mountain facing the ocean. The sky-blue Pacific, hazy and smoky, stretches out toward the west until its delicate blue fades into that of the sky. A patch of reddish gray sand skirts the foot of the brown velvet hills, and this is divided from the sky-blue water by the silvery strip of surf which is dashing its waves upon the shore. The scenery changes at almost every turn of the wheel. There is no place where nature clothes the earth in such royal garments as here. At times the Andes are great masses of blue and brown plush. The clouds of the sky, though of a fleecy whiteness, paint velvet spots of many colors upon the hoary hills, and at times it seems as though all the ink bottles of the heavens had been scattered over the mountains with the most delicate blues, which fade into lighter tints of blues in the distance, till the whole horizon seems a billowy, waving sea of blue dusted with silver, which meets and loses itself in a silver blue sky. Winding in and out of such hills we rise to a great desert known as the Pampa de Islay. Here everything is gray and dazzling white. There are hundreds of huge mounds of moving sands which are traveling slowly but surely over the plain. There are tons of bleaching bones of animals which have died in trying to cross the desert waste, and the only apparently living things are the mirages, which now and then deceive the traveler with the idea that they are cool lakes, inverted cities or oases of vegetation near at hand. At the little town of Vitor, a mile above the ocean, we reach the end of the Pampa and again begin to ascend. We are again in ragged hills and soon are traveling among the clouds. We pass through deep cuttings in the mountains and end the first day's travel at Arequipa, 7,500 feet above the sea.

Most Expensive Railroad Ever Built.

This road is said to have greater excavations than any other line of similar length. It is one of the most expensive roads ever built, having cost $44,000,000 for a line of 327 miles, or an average of $135,000 a mile. The road reaches an altitude of 14,666 feet in crossing the Andes to the plateau of Lake Titicaca, and here, where it ends, the altitude is higher than the top of Fugiyama, the sacred snow-capped peak of Japan. It has a branch line of 122 miles going over the plateau to within two days of Cuzco, the famed capital of the Incas. This railroad was built when Peru was rich and when she was squandering fortunes on such things. It is the work of the American engineer, Meiggs, and is one of the great engineering feats of the world. There is talk of extending it to Bolivia, and it may some time be a part of a transcontinental line, reaching to Paraguay and the Argentine Republic. At present it belongs to the Peruvian corporation, the English syndicate which took Peru's railroads in consideration of relieving the country of its foreign debt, but it is managed by an American, Mr. Victor H. McCord, who keeps it in almost as good condition as any road you will find in the United States. All of the rolling stock is American in pattern, though of late the cars and engines have been made by Peruvians in the company's shops at Arequipa.

Arequipa is the halfway station on the road to Lake Titicaca, and it is there that the general offices of the road are situated. I visited the railroad shops and found 400 Peruvians engaged in all kinds of car construction. They make engines as good as any used in our country, and have some which are especially adapted to the heavy grades of the Andes. The shops are in charge of an American, a Mr. Beaumont, of New Jersey, but all of the men are Peruvians. Mr. Beaumont told me that of the 1,000 hands employed in one capacity or another on the road, there were not more than ten foreigners. It may interest our railroad men to know the wages which their kind receive down here. I give them in American gold values and not in the silver in which they are paid. Trackmen receive 75 cents a day, and brakemen a similar amount. Engineers get $100 a month, and conductors are paid from $30 to $65 a month, according to position and length of service. Men employed in the shops get from 75 cents upward per day. There are no trades unions and the men never strike. They work nine hours a day, and with those who are out on the road the day lasts without extra pay until the cars come in.

A City of Vaults and Iron Bars.

Arequipa is the second city of Peru. It has about 35,000 people, and is still lighted by coal oil, though an electric lighting plant is now being put in. The town lies in the little valley of the Chile river, which makes an oasis of green in the midst of the desert and give Arequipa about fifty odd square miles of irrigable land. Arequipa is the commercial capital of the southern part of the country, and a great part of the trade of Bolivia passes through it. Most of the business is done by the Germans and English, and there is not an American house in the city. It is the neatest, prettiest and brightest town I have yet seen in South America. It is 400 odd years old, and is battered and knocked up by the earthquakes of the past, but as you go through it you get the impression that the town is almost brand new. It looks as though it had come from a bandbox. The houses are mostly one-story stone boxes, but their walls are painted in the most delicate tints of blue, pink, cream, green and gold. I posted my letters in a postoffice tinted in ashes of roses. I bought the fruit I ate for breakfast in a sky-blue fruit store, and cashed a draft on London in a bank which had outer walls the color of gold. Another peculiarity of Arequipa is that most of its rooms are made in the shape of vaults. The stores are vaults ten to fifteen feet wide and from ten to thirty feet deep, with doors looking out upon the streets. In many cases there is no way out at the back, and the only light, except that from the door, comes in through holes in the roof. I ate my dinner at the hotel in Arequipa in a vault. I was shaved in a vault, and my sleeping room had a vaulted roof. I went out on the roof once or twice to look over the city. These vaulted roofs gave it the appearance of a Chinese graveyard rather than that of an American town. The streets are narrow and paved with cobbles. Down one side of each street there is a rushing stream of mountain water, which carries off the sewage, and which, as it gurgles through the streets at night, makes you dream of rain and go to the window as soon as you awake to see if it really is clear or not. It rains only a part of the year in Arequipa, but when it does rain it sometimes pours. At such times the streets are flooded, and the water from the roofs is carried out by little tin pipes, as big around as a broomstick, to just over the middle of the sidewalk, where it goes down the backs of the necks of the unwary passers-by.

INDIANS OF THE PAMPAS.

In walking through Arequipa one might get the idea that the city is full of burglars. Every house facing the sidewalk and every window is covered with iron bars. The houses themselves look like fortresses, and the locks on the doors are of mammoth size. The barred windows and locked doors are not for the burglars. They are not to keep thieves out, but to cage the girls in. The windows have seats behind the bars, but no Peruvian beau stops to chat at these with his lady love. The bars of iron are as thick as your finger and so close together that the most ardent lips could not meet between them. This seclusion of the women by the Spanish people is probably a relic of their admixture with the Moors centuries ago. The wrapping up of the heads in black clothes was originally so done that only one eye showed out. It was worse than the veils of Egypt or Constantinople. Now the whole face is displayed, and many of the better class girls wear hats. A Peruvian parent, however, never lets his girls go out alone on the street. There are no moonlight drives and walks with lovers here, and when you call upon your sweetheart you have to entertain the whole family, and if you go with your girl to the bull fight you take mamma, papa, auntie and old maid sissy with you.

Harvard Men Watch the Stars in Peru

The most interesting thing in Arequipa, however, is the Harvard college observatory. Just about twenty years ago Uriah H. Borden died and left $200,000 to Harvard college, with the understanding that the money was to be used to establish an observatory at the very best place that could be found in the whole world for study of the stars and meteorological conditions. The college authorities first tried points in Colorado and California, and then sent an expedition to South America. This expedition first established a station 6,600 feet above the sea in the Andes back of Lima, on what is now called Mount Harvard. In 1890 they changed the station to Arequipa, and have since made this one of the great scientific centers of the world. Arequipa is 7,550 feet above the sea, and it has more clear days and nights, it is said, than any other place on earth. There are about nine months of the year there when the sky is perfectly clar. You people who pride yourselves on beautiful skies and glorious sunsets will not know what the words mean until you have visited South America. These are especially fine at Arequipa, which has in addition the advantage of being south of the equator at one of the best points for viewing the Southern heavens.

There is, you know, nothing duplicated in the sky, and there are here wonderful stars and constellations which we never see. The milky way south of the equator is far more brilliant than it is in our heavens, and there are many other different stars with different movements. You have all heard of the Southern Cross, which my friend, Dr. Talmage, says looks to him like the handwriting of God on the face of the sky. I don't think much of it. It is a measly cross at best. There are only four stars in it that are not at all bright, and you have to look hard to find them. There are, however, wonderful things outside of this, and the best observations made so far in recent years of the Southern heavens have been by these Harvard scientists. They have four great telescopes at Arequipa, which night after night through the nine clear months of the year are pointed at the stars. Connected with each of these telescopes is a photographic apparatus, which records the movements of such stars as the scientists wish to study, and which by fine machinery move along with the stars until their images and those of their surroundings are registered upon the photographic plate. The Bruce telescope, for instance, is, I believe, the largest of its kind in the world, though I am not sure of this. It has a lens 24 inches in diameter and gives photographs on plates 14x17 inches in size. I took a look through the Bruce telescope during my visit to the observatory. The tube of the instrument must weigh more than a ton, but it is so delicately hung that a child could move it. It runs by a clock and a heavy weight. The chief part of the work done at the observatory is photographing the heavens. Five photographic instruments are kept going and about fifty plates are made every night. Last year more than 5,000 plates were exposed and developed. The negatives are shipped at once to the University of Harvard, at Cambridge, and are there used for study and scientific work. They are kept on file there and form a wonderful astronomical library of the Southern heavens. Through this observatory Harvard college has the best advantages of the world for astronomical research. The scientists of Cambridge are always watching the Northern heavens, but they cannot see much below the equator. The Arequipa observatory takes in the whole sky from the equator to the South pole, the two giving a complete view of the heavens.

World's Highest Observatory Station.

Within the last few years the Arequipa astronomers here have established a station on the top of Mount Misti. This mountain is one of the highest of the Andes. It lies just back of Arequipa, standing against the horizon almost alone in its grandeur, its top kissing the sky at an altitude of 19,200 feet above the sea. It is some thousands of feet higher than any point in America, and is a full mile higher than our observatory on Pike's Peak. It is by more than 3,500 feet loftier than any other scientific station in the world. The site of the station is on the edge of a huge crater, which now and then sends clouds of yellow sulphurous vapor a thousand feet into the air. Mount Misti is an extinct volcano, but it is not dead, and it may at any time break out into eruption. At this great altitude, nearly four miles above the sea, the Harvard men have now the finest of scientific instruments for registering the

AN AREQUIPA BELLE.

conditions of the atmosphere, the velocity of the winds, the pressure of the barometer and other conditions. The instruments are of course automatic, running for three months without being touched. No one could live at such an altitude, and the scientists go up only periodically to get the records and rewind the instruments. As it is the trip is a very hard one. Some of the men get soroche or mountain sickness, and many men cannot make the trip at all. The observatory has other stations on the sea near Mollendo, on the high plateau where I now am, and at Cuzco, the famed capital of the Incas, which is a little more than 100 miles from Lake Titicaca. The founding of this wonderful work was done by Professor W. H. Pickering and Solon I. Bailey, of Harvard, the most of the stations being established by the latter. Professor Bailey has just returned to the United States, and the observatory and its stations are now in charge of Mr. W. B. Clymer, of Ohio, and Mr. DeLisle Stewart, of Minnesota. These young astronomers have contracts to remain here for five years. The position is not a bad one, by any means. The observatory is situated 500 feet above the city of Arequipa, overlooking the irrigated valley of the Chile river, which produces the richest crops the year round. The home of the observatory is most comfortable, one of its chief attractions being Mrs. Stewart's little blue-eyed baby, a few months old, born in Peru, which is as pretty and as healthy as any baby you will find north of the equator.

Across the Pampas of the Andes.

There are three mountains back of Arequipa which are higher than any point in the United States outside of Alaska. Mount Charcani is higher than Mount Misti, and as you leave the desert and ascend to the lofty plateau you get a glimpse of Corupuno, which is 22,800 feet above the sea. Mount Misti's snowy summit is in sight for hours, and I watched the fleecy clouds flying about and below it, sitting in my overcoat on the rear platform of the car. We left Arequipa in the early morning, and at 11 o'clock stopped at the station of Punta de Arrieros for breakfast. This station is more than two and a half miles above the sea. It consists of a few stone huts thatched with straw and a one-story wooden building made of pine, which I doubt not was shipped here from Oregon. There was a bar at one end of the dining room, presided over by a fat Peruvian girl, and at the other end were the breakfast tables. The meal cost about 50 cents of our money, and it was as good as any 50-cent meal you can get in the Rockies. First there was chicken soup with rice, then codfish balls well browned, then boiled beef and green peas, beefsteak spiced with a sauce of onions and red pepper, a sweet omelet and a cup of very good tea. After the meal I bought four clingstone peaches of an Indian girl for 2 cents and three oranges for a nickel. These eatables, however, all came from the irrigated valleys or the lowlands. On the high plateau on which we traveled there was only a scanty, fuzzy growth of moss-like grass. There was not a tree, and only here and there, about a little mud hut, a patch or so of potatoes, some barley—which is grown only for forage, as it will not ripen in this latitude—and also many little fields of quinua, a plant which looks like a cross between a red dock weed and a mullen stock. It is planted in rows and is cultivated. It is of a yellow or red color, and its seeds are eaten as mush and taste not unlike oatmeal. I saw some dandelions and a lot of green plants which looked like scrubby firs or evergreen, but which nowhere were more than a few inches high. After crossing the coast range, which is, you know, the highest of the Andes, the grass became greener, and for miles we traveled through what seemed to be a rich bed of moss. We went by beautiful lakes and rode over plains dotted here and there with the mud huts of the Indians and with large flocks of llamas, alpacas and sheep. Each flock was watched by a woman who wore a black or blue dress and shawl and a queerly shaped hat, much like that of a priest. Each shepherdess had a spinning spool in her hand, and kept this going as long as we were in sight. At the stations we saw many Indian men and women. The men wore bright-colored shawls and wide pantaloons slit up as far as the knee at the back. Every one of them had on a knit cap, much like a night cap, with flaps coming down over the ears, and on top of this a little hat, which seemed to be more for ornament than warmth. Nearly all, both men and women, were in their bare feet, although the air was bitter cold, and as we crossed the pampas the hail came down in torrents, whitening the ground. These people were chiefly of the Aymara tribe of Indians, who, to a large extent, form the population of this part of Peru and of Bolivia.

FRANK G. CARPENTER.

"There's no use," said Cervera, "of trying to deny that our superiority is again demonstrated." "I'm afraid I don't quite follow you," said the officer. "I was thinking how much easier it was for Spain to discover America years ago than it has been for America to discover Spain in this locality."—Washington Star.

A small business can be well advertised in the classified ads on the Want page.

MENAGERIE ON HIS HANDS.

A Mahometan Speculator Unable to Dispose of Beasts and Reptiles.

From the New York Press.

Under the shadow of burlap hangings in one corner of the deck of the steamer Sahara, which came into the Erie basin a few days ago, sits a Mahometan, Sheik Bhandoo, surrounded by the cages of animals which he has brought to this country from India on a speculation. His dark eyes have a mournful expression and his attitude is one of deep dejection.

The sheik speaks English well, but he is not communicative. The voyage was a bad one, particularly bad, he says, and then lapses into silence. No, he has not sold any of his animals; he does not know whether he can, and the hopelessness deepens in his dark face.

There are in the sheik's collection green doves, hornbills, partridges, tapirs, deer, peacocks, squirrels, crowned pigeons, blood-spotted paroquets, anacondas and all manner of strange birds and beasts from Singapore and other East Indian ports. They mutter and twitter and growl and complain behind their bars and curtains or are moodily silent, like their master. Some of them are sick, some of them died on the way, including an anaconda eighteen feet long. The next largest one measures seventeen feet.

"Yes, indeed, it was a bad voyage," laments the sheik. "I have never been in this country before. I don't think I come again. I have much money invested. A tapir is worth $400, the hornbills $200, the squirrels, two bones, $10; the partridges, $7.50 a pair. Oh, yes, it is a great deal of money to risk on such a trip."

The Himalayan partridges are beautiful birds, blue-gray in color, with wings of mottled colors. They look too pretty to kill, but the sheik says they are used for food in India. They were pecking at the grain which was brought along for their food, disconsolately chatting about the situation with the green doves in the next cage.

The squirrels, which are of several shades of brown and rather larger than the American squirrel, tried to be frisky, but found no encouragement to keep it up, and presently settled back into a corner of their darkened cage and went to sleep. An Indian deer had been roaming at large about the deck, but the sheik was afraid it would get hurt in the unloading of great bales that was going on, and tied it up in a corner, where it looked forth longingly with large, pathetic eyes.

It is an unusually interesting menagerie, from the dark-skinned owner down to the smallest bird.

In another part of the Erie basin lies the Chazee, which came in a few days before the Sahara, and had another attractive although less costly collection of animals on board. They were the property of the cook and the steward, both Chinamen, who have had better luck than the Mahometan has met with. About forty monkeys have been sold to local dealers at a good profit to the Chinamen. They have still on hand a strange sort of bear with a small body and a large head, and long claws used in climbing; a vicious Indian wildcat that repels all friendly advances, a beautiful chetah and two bright-colored "diamond" snakes. The last named have not been fed since they left Singapore. At that port several live chickens—they will not eat animals that have been killed—were put in their cages, and whenever a snake felt hungry he took a chicken. These disposed of, the reptiles are satisfied for months without food.

TOOK CHAUNCEY FOR ADAM.

How an Agent Tried to Deliver Over to Dr. Depew Adam Forepaugh's Baby Elephant.

From the Minneapolis Tribune.

The resemblance between Chauncey M. Depew, the distinguished New York railroad president and statesman, and the late Adam Forepaugh, the circus king, was wonderfully striking, and Brother Adam, and vice versa. This similarity in personal appearance led to a number of very ludicrous mistakes.

A few years ago, while Forepaugh's big show was in winter quarters in Philadelphia, one of the baby elephants was rented out to the management of an opera company, it being utilized to give realism to an Oriental scene. The opera company closed its season the latter part of March, and the baby elephant was shipped back to Philadelphia, in charge of the agent of the company. The elephant was left in the car, and the agent went down town to the Continental hotel, where he had made an appointment to meet Mr. Forepaugh, whom he knew and had frequently met.

Brother Chauncey happened to be at the hotel at the time. He had been invited over to Philadelphia to a dinner given by the famous Clover Club, and when the opera company's agent entered he was standing near the desk, talking to one of the clerks. The agent instantly spotted him for Brother Adam.

"Good morning," he said; "I'm glad to see you."

"Delighted, I'm sure," answered Brother Chauncey with a puzzled look on his face, as though trying to remember where he had seen the agent.

"You got my letter, of course?"

"No—yes—well, no, I can't say I did," and the puzzled look deepened on Brother Chauncey's face.

"Oh, well," said the agent, "it doesn't make any difference—the baby's here."

"The—baby's—here—?"

"Why, yes; it arrived this morning; what shall I do with it?"

"Do with what?"

"Why, the baby."

"What baby?"

"The baby elephant."

A light broke over Brother Chauncey's face.

"My dear fellow," he said, "who do you take me for?"

"For Adam Forepaugh."

Brother Chauncey began to laugh. "Great Caesar," he exclaimed, "that's the fourth time I've been mistaken for Mr. Forepaugh since I've been in Philadelphia and in every town I strike I have at least one experience of the kind. My name's Depew—I'm Chauncey Depew."

Then they both laughed and the agent went off to find the real Mr. Forepaugh.